



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,493	06/03/2005	Hiroshi Horiuchi	Q88366	4639
65565	7590	04/02/2009	EXAMINER	
SUGHRUE-265550			BADR, HAMID R	
2100 PENNSYLVANIA AVE. NW			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20037-3213			1794	
			MAIL DATE	DELIVERY MODE
			04/02/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

***Advisory Action***

Applicants' amendment and arguments filed on 3/23/2009, after the final rejection, have been considered.

The amendment is entered. The 35 USC 112, first paragraph rejection of record is not overcome by applicants' amendment/arguments.

Claim 13 is rejected under 35 U.S.C 112, first paragraph, as failing to comply with the written description requirement.

Claim 13 was originally rejected for "reduced concentration of dissolved oxygen is maintained during fermentation". This statement is not supported by the instant specification.

***Response to Arguments***

Applicants arguments have been thoroughly reviewed. These arguments are not deemed persuasive.

1. Applicants argue that the disclosure of the paragraph bridging pages 6 and 7 of the instant specification supports the limitation "reduced concentration of dissolved oxygen is maintained during fermentation" and that the 112 (1) rejection should be withdrawn.

a. The disclosure of the paragraph bridging pages 6 and 7 of the instant specification is "[c]arrying out fermentation at the general temperature in conditions that

the dissolved oxygen concentration in the mix is reduced. " It is clear that "maintaining" the dissolved oxygen during fermentation, as presently claimed is not described or disclosed by the specification.

2. Applicants argue that one skilled in the art would not have been motivated to combine R1 with R2 because in R1 carbon dioxide is used to displace oxygen in pasteurized milk while in R2 the reduction of dissolved oxygen concentration is carried out on raw milk for the purpose of improving the flavor of raw milk and since the purpose and timing of using carbon dioxide in R1 and those of the reduction of dissolved oxygen concentration in R2 are different, there is no motivation.

a. The primary reference (R1) is clearly disclosing the method of creating anaerobic conditions for the fermentation of milk together with the advantages of doing so. Advantages such as reducing the fermentation time and firmness of the gel are also being presently claimed. However, attributes such as for instance taste of the product caused by carbonation which is known to people of skill in the art triggers looking for an inert gas to displace oxygen in the fermentation medium. R2 clearly teaches that nitrogen can be used to displace oxygen in the medium. Displacement of oxygen in raw milk or pasteurized milk are not very different. There may be less dissolved oxygen in pasteurized milk due to the heat treatment which in fact will help the oxygen displacement by using a gas such as nitrogen.

It should also be realized that "obviousness under 103 is not negated because the motivation to arrive at the claimed invention as disclosed by the prior art does not agree

with appellant's motivation", *In re Dillon*, 16 USPQ2d 1897 (Fed. Cir. 1990), *In re Tomlinson*, 150 USPQ 623 (CCPA 1966). If nitrogen is used for a different purpose in raw milk, it does not mean that it cannot be used for other purposes including the presently claimed use of nitrogen.

3. Applicants argue that if carbon dioxide is added into the mix which contains milk, pH of the milk is lowered and protein materials contained in the milk curdle resulting in a fermented product of poor texture.

a. In order for carbon dioxide to get dissolved in milk or any aqueous solution, the pressure on the system must be increased and the temperature should be lowered. If these conditions are not met, carbon dioxide will not exist in solution to the extent to affect the pH. On the other hand the high buffering capacity existing naturally in milk will prevent lowering of pH due to carbonation (gasification). Additionally, R1 in combination with R2 will produce the presently claimed results, and R1 should not be judged on its own in an obviousness rejection.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMID R. BADR whose telephone number is (571)270-3455. The examiner can normally be reached on M-T 5:30 to 4:30 (Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hamid R Badr  
Examiner  
Art Unit 1794

/Callie E. Shosho/  
Supervisory Patent Examiner, Art Unit 1794